# THE RELATIONSHIP BETWEEN PERFECTIONISM AND DEPRESSION

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"I pledge. . ."

## Contents

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by

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This senior honors thesis has been awarded Highest Honors.

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Two studies were designed to examine the relationship between perfectionism and depression in a college setting. For Study 1, it was hypothesized that the positive correlation between perfectionism and depression that Hewitt and Flett (1990) found would be replicated. College-aged women responded to four questionnaires, two of which measured perfectionism, one self-efficacy, and one depression. The results replicated the previous research. Other interesting findings are discussed. For Study 2, it was hypothesized that (1) perfectionists who have low self-efficacy will become depressed when they experience failure, and they will attribute their failure to their lack of ability and (2) perfectionists who have high self-efficacy will not become depressed when they experience failure and will attribute their failure to a lack of effort. College-aged women from Study 1 participated in this study, crossing perfectionism with self-efficacy. All subjects were presented with a task that they failed and then gave attributions for their performance. The results did not support either hypothesis. However, other interesting findings were obtained and discussed.

The purpose of this thesis is to examine the relationship between perfectionism and depression and the existence of a mediating variable in that relationship. Self-efficacy will be explored as a mediating variable in producing depression among subjects with both high and low perfectionism and self-efficacy after experiencing failure. The literature review will begin with a definition and measurement scales of perfectionism. The previous findings on the relationship between perfectionism and depression will also be reviewed. Study 1 will attempt to replicate a previous finding (Hewitt & Flett, 1990) on the existence of a positive correlation between perfectionism and depression. Study 2 will be a 2 (high and low perfectionism) X 2 (high and low self-efficacy) design. Subjects will experience failure; positive and negative affect and attributions for failure will be measured. The results of both of these studies will be discussed.

## Literature Review

### Definition and Measurement of Perfectionism

Research on perfectionism has focused on people who set standards above their perceived ability level and do not alter their high standards despite differing situations which may require different degrees of exactness. Hollender (1965) defines perfectionists as being demanding of themselves and not being satisfied with any performance that is not perfect. He believes that perfectionists are exacting, look for flaws, belittle themselves, and avoid failure. He believes that perfectionism is learned during childhood. An insecure child seeks acceptance from parents. Perfectionistic parents often expect their children to be perfect. When performance is not perfect, children of perfectionistic parents feel rejected due to the lack of praise. Hollender states that feelings of rejection from parents lead one to not accept oneself. This lack of self-acceptance is accompanied by unfavorable self-feeling and self-image. The ultimate goal of perfectionists, therefore, is to achieve acceptance. According to Hollender, this pursuit of acceptance from others in order to accept oneself and the hope of a better self-image are driving forces in perfectionists.

According to Hamachek (1978), there are different degrees of perfectionism, from normal

to neurotic. He believes that neurotic perfectionists are "unable to feel satisfaction because in their own eyes they never seem to do things good enough to warrant that feeling. . .[they] demand of themselves a higher level of performance than is usually possible to attain" (p. 27). Normal perfectionists receive a sense of pleasure from their efforts. They are satisfied when their tasks are completed well and are able to rejoice in that feeling. Hamachek (1978) theorizes that adult neurotic perfectionists grew up in an environment in which they had to meet certain standards prior to receiving acceptance or approval from their parents. Neurotic perfectionists place a large emphasis on performance as defining who they are as a person. Normal perfectionists experience self-acceptance, whereas neurotic perfectionists do not. According to Hamachek, perfectionists experience an "I should" feeling in which they believe they should do better; the degree of perfectionism determines how strong of an "I should" feeling they experience. The same is true of self-deprecation feelings in which perfectionists put themselves down. Normal perfectionists have positive self-esteem, whereas neurotic perfectionists lack self-esteem. Both Hamachek (1978) and Hollender (1965), believe that perfectionism is a learned behavior; therefore, it can be unlearned.

There are three scales that are most commonly used to measure perfectionism: the Burns Perfectionism Scale (Burns, 1980), the Multidimensional Perfectionism Scale (Frost, Marten, Lahart & Rosenblate, 1990), and the Multidimensional Perfectionism Scale (Hewitt & Flett, 1991a). Perfectionism has been narrowly investigated as a unidimensional construct for many years. Burns has been the chief investigator of this unidimensional construct.

> Generally, perfectionism is conceptualized as the tendency to have excessively high standards for oneself. Additional characteristics include "all or none thinking" whereby only actual attainment of the standards or total failure exist as outcomes for performance, a propensity to focus on flaws and past failures rather than successes in a self-punitive manner, and a tendency to generalize standards across behavioral domains. An important theme among these various characteristics is that they all focus on perfectionistic tendencies for the self (Hewitt & Flett, 1990, p. 424).

Burns (1983) defines perfectionism as "the compulsive and relentless pursuit of goals that are unrealistically high" (p. 221). He states that perfectionists believe that they must excel in order to attain self-worth. Positive self-esteem comes only through achievements. Burns (1983) primarily describes neurotic perfectionists, according to Hamachek's (1978) definition. According to Burns (1983), perfectionists experience both negative physiological and negative social effects of perfectionism, such as depression, anxiety, impaired health, dissatisfaction with their personal and professional life, decreased productivity, and loneliness.

Burns (1980) developed a scale to objectively measure perfectionism. The Burns Perfectionism Scale measures perfectionism as it pertains to individuals' beliefs about themselves. It contains ten attitudes that are commonly held by perfectionists. Subjects rate their agreement with each statement on a five-point scale from "I disagree strongly" (0) to "I agree very much" (4) (Burns, 1983). Scores range from 0 to 40; the higher the score, the more perfectionistic one is. These attitudes focus solely on the perfectionists' feeling toward the self, not others.

Burns (1983) has identified five different categories of perfectionists: career, marital, emotional, moral, and sexual. Career perfectionists feel the need to excel in all of their career related activities. Marital or interpersonal perfectionists believe that people should be loving and not fight at all. They also have high expectations for their family members and friends. Emotional perfectionists believe that they should always be happy and therefore, they cannot handle negative feelings of depression or sadness. Moral perfectionists live by high moral principles and they are not able to forgive themselves for not living up to their own standards. Sexual perfectionists experience performance anxiety. Female sexual perfectionists worry about achieving orgasm and base their self-worth on their physical appearance. Male sexual perfectionists base their self-worth on their ability to have an erection.

Early perfectionism research, conducted by Burns, focused on the intrapersonal aspect of perfectionism. Recent research has found that perfectionism is multidimensional (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1990; Hewitt & Flett, 1991a), meaning that perfectionism has both intrapersonal and interpersonal aspects. Perfectionists do not solely focus

on their own exacting standards but also consider the standards they perceive are imposed upon them by significant others (Frost et al., 1990; Hewitt & Flett, 1991a). The definition of perfectionism, as setting exacting standards and high goals and focusing on past failures, has remained the same; the difference is to whom the behavior is directed, to oneself or others.

Frost, Marten, Lahart, and Rosenblate (1990) investigated the multidimensionality of perfectionism and found several recurring evaluative tendencies in perfectionists that have appeared in the perfectionism literature. They identified six perfectionistic tendencies and used them to develop the Multidimensional Perfectionism Scale (MPS). The tendencies and hence the subscales of the MPS are: an over concern for mistakes, high personal standards, perceived parental expectations, perceived parental criticism, doubts about actions, and a need for organization and neatness. The purpose of the scale is to measure perfectionism multidimensionally, across a broad range of perfectionistic tendencies, but the MPS also provides an overall perfectionism score.

In developing the scale, Frost et al. (1990) administered 67 statements to two samples of female undergraduate students. The statements were derived from the Burns Perfectionism Scale (Burns, 1980), the Eating Disorders Inventory (EDI; Garner, Olmstead, & Polivy, 1983, as cited in Frost et al., 1990), and the Maudsley Obsessive-Compulsive Inventory (MOCI; Rachman & Hodgson, 1980, as cited in Frost et al., 1990). Factor analyses were conducted and 10 distinct factors emerged; the four factors that accounted for the least amount of variance were dropped. As a result, the number of statements was reduced from 67 to 36. These 36 statements were then administered to the second sample of subjects. Further factor analyses were conducted and the same six distinct factors emerged; however, some items loaded slightly differently on the factors than before. In the final assignment of statements to subscales, two statements were revised to maximize reliability scores. The final version of the MPS contains 35 statements which are presented in a 5-point Likert-type format that ranges from strongly disagree (1) to strongly agree (5). Internal consistency ranged from $\alpha = .77$ to $\alpha = .93$. The concern over mistakes subscale is the main component of perfectionism, contributing to 25% of the variance. The six subscales are

correlated with one another. However, the organization subscale has the weakest intercorrelation pattern and the weakest correlation with the overall perfectionism score. Therefore, the organization subscale is not used to compute the overall perfectionism score; there are only five subscales that contribute to the overall perfectionism score (Frost et al., 1990).

The MPS (Frost et al., 1990) was correlated with three other perfectionism scales: the Burns Perfectionism Scale (Burns, 1980), the Self-Evaluative (SE) Scale from the Irrational Beliefs Test (IBT; Jones, 1968, as cited in Frost et al., 1990), and the Perfectionism Scale from the Eating Disorders Inventory (EDI; Garner, Olmstead, & Polivy, 1983, as cited in Frost et al., 1990). The MPS was significantly correlated with all three of these measures. The Organization subscale of the MPS was not significantly correlated with the Burns Perfectionism Scale. Frost et al. (1990) attributed some of the high correlation to item overlap.

Hewitt and Flett (1991a) have also found that perfectionism is a multidimensional construct with both intrapersonal and interpersonal aspects. They identified three components of perfectionism: self-oriented, other-oriented, and socially prescribed perfectionism. The perfectionistic behaviors exhibited in these three dimensions do not vary in type but differ with respect to whom the behaviors are directed or attributed. Self-oriented perfectionism is "an intrapersonal dimension characterized by a strong motivation to be perfect, setting and striving for unrealistic self-standards, focusing on flaws, and generalization of self-standards" (Hewitt & Flett, 1991b, p. 98). Hewitt and Flett (1991a) found that self-oriented perfectionism is significantly correlated with the setting of high standards, self-criticism, self-blame, importance of self-performance, importance of self-attainment of goals, and narcissism. Other-oriented perfectionism includes similar behaviors as self-oriented perfectionism, "but these behaviors are directed toward others instead of toward the self" (Hewitt & Flett, 1991b, p. 98). This component focuses on the unrealistic expectations and beliefs that one holds for significant others. Hewitt and Flett (1991a) found that other-oriented perfectionism is correlated with blaming others, authoritarianism, dominance, and narcissism. The third dimension, socially prescribed perfectionism, involves the "belief that others have perfectionistic expectations and motives for oneself" (Hewitt & Flett,

1991b, p. 98). Some perfectionists tend to feel that significant others expect them to be perfect. Hewitt and Flett (1991a) found that socially prescribed perfectionism is correlated with the need for approval from others, fear of negative evaluation, external locus of control, and social importance of attaining goals.

Hewitt and Flett developed their own Multidimensional Perfectionism Scale (MPS; 1991a) to measure these perfectionism dimensions. They administered 122 items to an undergraduate sample of subjects, in which subjects rated their agreement on a 7-point Likert scale. The subjects also completed the Crowne Social Desirability Scale (Crowne & Marlowe, 1960, as cited in Hewitt & Flett, 1991a). Items were selected for the MPS based on "a mean score between 2.5 to 5.5, a correlation of greater than .40 with its respective subscale, and a correlation of less than .25 with the other subscales" (Hewitt & Flett, 1991a, p. 458). Items were retained if they had a correlation of less than .25 with respect to social desirability. There were small intercorrelations among subscales, indicating that there is some overlap among subscales. Hewitt and Flett (1991a) found that self-oriented perfectionism was not correlated with social desirability; however, both other-oriented and socially prescribed perfectionism were significantly but negatively correlated with social desirability. The current MPS is a 45-item self-report questionnaire. Subjects rate their agreement with statements on a 7-point Likert scale that ranges from strongly disagree (1) to strongly agree (7).

To determine the validity of the MPS, Hewitt and Flett (1991a) administered the test to two samples: an undergraduate and patient sample. In the student sample, the MPS was filled out by the subjects and then the subjects asked a significant other to fill out the MPS in terms of how they believed the subject would respond. The patients completed the MPS and clinicians filled out the MPS as they believed their patients would respond. For the student sample, the internal consistency of the MPS was replicated and factor analyses produced three distinct factors. The first factor comprised all of the self-oriented perfectionism items; factor loadings ranged from .45 to .66. The second factor was socially prescribed perfectionism and it comprised all of the socially prescribed perfectionism items. The factor loadings ranged from .39 to .63. The third factor was

other-oriented perfectionism which included 13 of the 15 items with factor loadings ranging from .38 to .63. The other two items had factor loadings of .24 and .32 for other-oriented perfectionism; however, they had slightly higher loadings on the second factor, socially prescribed perfectionism. Factor analyses on the data from the patient sample produced similar results. There were significant correlations between the subjects' scores and the observers' ratings. Hewitt and Flett (1991a) concluded that self-oriented, other-oriented, and socially prescribed perfectionism can be observed by others.

In another study, Hewitt and Flett (1991a) administered the MPS, personality, and psychopathology scales to 104 undergraduates. Out of this sample, 34 subjects were randomly chosen to complete the MPS again, three months later. This study produced evidence of temporal stability. For self-oriented perfectionism, the test-retest reliabilities were .88, for other-oriented perfectionism .85 , and for socially prescribed perfectionism .75. "Although these findings must be replicated, they constitute important evidence that perfectionism is a trait that remains relatively stable over time" (Hewitt & Flett, 1991a, p. 463).

Frost, Heimberg, Holt, Mattia, and Neubauer (1993) conducted a study to compare the Frost et al. (1990) Multidimensional Perfectionism Scale and the Hewitt and Flett (1991a) Multidimensional Perfectionism Scale. These two scales were compared to each other and to measures of affect, both positive and negative. The researchers expected to find that Hewitt and Flett's self-oriented perfectionism would be closely associated with Frost et al.'s personal standards subscale, and Hewitt and Flett's socially prescribed perfectionism would be closely associated with Frost et al.'s parental expectations, parental criticism, and concern over mistakes subscales. It did not seem that Hewitt and Flett's other-oriented perfectionism scale would be associated with any of Frost et al.'s subscales. Frost et al. (1993) also examined the relationship of both MPSs to depression and positive and negative affect. The number of subjects differs slightly in the data analyses due to missing responses. The number of subjects included in the correlations between the subscales of the two MPSs varied between N=488 and N=535. The number of subjects included in the correlations between the perfectionism scores and the measures

of affect varied between N=462 to N=544.

Frost et al. (1993) found that the Frost et al. MPS's overall perfectionism score was significantly correlated with self-oriented perfectionism ($r = .49, p < .01$), socially prescribed perfectionism ($r = .57, p < .01$), and other-oriented perfectionism ($r = .28, p < .01$) scales from the Hewitt and Flett MPS; however, the correlation with Hewitt and Flett's other-oriented perfectionism scale was not as strong as the correlations with self-oriented and socially prescribed perfectionism. The personal standards subscale from the Frost et al. MPS was significantly correlated and more closely associated than any of the other Frost et al. subscales with the self-oriented perfectionism scale ($r = .62, p < .01$) from the Hewitt and Flett MPS. There were also significant correlations between the Hewitt and Flett MPS self-oriented perfectionism scale and Frost et al.'s concern over mistakes ($r = .38, p < .01$) and parental expectations ($r = .24, p < .01$) subscales. The researchers found that Hewitt and Flett's socially prescribed perfectionism scale was significantly correlated with Frost et al.'s concern over mistakes ($r = .49, p < .01$), parental expectations ($r = .49, p < .01$), and parental criticism ($r = .49, p < .01$) subscales. Hewitt and Flett's other oriented perfectionism scale was significantly correlated with Frost et al.'s personal standards ($r = .33, p < .01$), concern over mistakes ($r = .22, p < .01$), and parental expectations ($r = .19, p < .01$) subscales.

Frost et al. (1993) conducted a factor analysis on both perfectionism measures. Two distinct factors emerged which they named maladaptive evaluation concerns and positive strivings. The maladaptive evaluation concerns factor accounted for Frost et al.'s concern over mistakes, parental criticism, parental expectations, and doubts about actions subscales and Hewitt and Flett's socially prescribed perfectionism scale. The second factor, positive strivings, accounted for Frost et al.'s personal standards and organization subscales and Hewitt and Flett's self-oriented and other-oriented perfectionism scales.

As a result of the above research, perfectionism is now viewed as a multidimensional construct that may be measured both intrapersonally and interpersonally. In the present research, both the Frost et al. (1990) MPS and the Hewitt and Flett (1991a) MPS were used to obtain

perfectionism measurements. Although the Burns Perfectionism Scale (1980) has been utilized in past research, it focuses solely on intrapersonal aspects of perfectionism, and it was not published in a refereed journal. For these reasons, it was not used in the present study. The Frost et al. MPS also has the advantage of being previously used in an all female population which is the same type of population in which this study was conducted.

Perfectionism and Depression

Through clinical observations, it has been implied that perfectionism is related to depression, that the two seem to coexist. Recent research has shown that perfectionism is related to depression as measured by the Beck Depression Inventory (Beck & Steer, 1987). Although a correlational relationship has been determined, a causal relationship has not been examined. Perfectionism seems to permit depression. Previous research (Hewitt & Flett, 1990; Frost et al., 1990; Flett, Hewitt, Blankstein, & O'Brien, 1991) has identified that high self-efficacy, as measured by the Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1979), and self-confidence are positively correlated with the setting of high personal standards; this is indicative of normal perfectionists (Hamachek, 1978). It may be that low self-efficacy, defined as believing that one does not possess the ability or skills to perform a certain task, is correlated with neurotic perfectionism (Hamachek, 1978) and may predict depression.

Hollender views perfectionism as a personality trait that exists simultaneously with other traits. One of those traits is depression. According to Hollender (1965), perfectionists' behavior is goal-directed, but perfectionists never seem to be completely satisfied with their performance and may, therefore, feel as though they have failed. "Failing to measure up to his own standard, he periodically feels depressed" (Hollender, 1965, p. 94). Hollender continues to state that the depression is transient, yet it is the feeling of failure not perfectionism per se that causes the depression.

Based on clinical observations, Hamachek (1978) states that most people are perfectionists to some degree and they periodically experience depression. The degree of perfectionism, from

normal to neurotic, determines how the person deals with this feeling (Hamachek, 1978). Normal perfectionists tend to view depression as a unsettling feeling and try to eradicate the feeling. However, neurotic perfectionists tend to view depression as a reason to feel negative about themselves. They feel as if they have no control over their feelings, so they experience the depression for a longer amount of time and at a greater intensity.

Hewitt and Dyck (1986) conducted a study to inquire into the relationship between stress and depression. They predicted that both stress and depression would be greater among subjects with perfectionistic attitudes and beliefs. They also hypothesized that together stress and perfectionism would predict later depression. Hewitt and Dyck (1986) administered the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961, as cited in Hewitt & Dyck, 1986), the Social Readjustment Rating Scale (SRRS; Holmes & Rahe, 1967, as cited in Hewitt & Dyck, 1986) which measures stressful life events, and the Burns Perfectionism Scale (Burns, 1980) to 105 undergraduate students. The subjects completed the BDI and the Burns Perfectionism Scale twice, two months apart. Subjects completed the SRRS the first time only. Prior depression was the most accurate predictor of later depression. The scores from the BDI and the Burns Perfectionism Scale were not significantly correlated at Time 1; however, they were significantly correlated when the scores from Time 2 were used ($r(103) = .35, p < .001$). This difference in time may have been due to the time during the college semester; Time 1 was at the beginning of the semester and Time 2 was during mid-term. There was a correlation between stress and perfectionism during both Time 1 and Time 2 ($r(45) = .27, p < .05$; $r(52) = .32, p < .05$, respectively). However, the combination of stress and perfectionism did not predict later depression more accurately than prior depression symptoms in stepwise multiple regression analyses.

Pirot (1986) conducted a study in which 76 subjects completed four questionnaires: the Acceptance of Self and Others Scale (Berger, 1952, as cited in Pirot, 1986), the Burns Perfectionism Scale (Burns, 1980), the Zung Self-Rating Depression Scale (Zung, 1965, as cited in Pirot, 1986), and the Internal-External Locus of Control Scale (Rotter, 1966, as cited in Pirot,

1986). Pirot found that those who accept others and themselves tend to be less perfectionistic and less depressed than those who do not accept others or themselves, that is perfectionists. Self-acceptance was associated with an internal locus of control which is similar to high self-efficacy, which is defined as believing that one possesses the ability or skills to perform a certain task. In this study, Pirot associates those who are self-accepting with a tendency to be less perfectionistic and to accept others. An external locus of control and perfectionism were associated with depression. In multiple regression analyses, self-acceptance was the only significant predictor of both perfectionism and depression. Perfectionists usually lack self-acceptance and are critical of themselves, as noted by Hamachek (1978) and Hollender (1965). Those who accept themselves are less likely to become depressed than perfectionists who do not accept themselves. Pirot (1986) noted that "perfectionists irrationally respond to the perception of failure or inadequacy with a considerable loss of self-esteem which sets the occasion for anxiety and depression" (p. 51). It might follow that these students experienced failure which led to lowered self-esteem, together producing depression. A perfectionist believes that "failure automatically means loss of self-esteem, which challenges him to be even more perfect to avoid future failure. The cognitive distortion that he must be perfect before failure creates a vicious self-defeating circle of lowered self-acceptance, strengthened perfectionism, and depression" (Pirot, 1986, p. 57). A perfectionist tries to be more perfect in order to avoid failure which leads to a loss of self-esteem. For a failure experience to result in a drastic lowering of self-esteem, it seems that perfectionists do not possess feelings of self-efficacy.

Hewitt and Flett (1990) sought to replicate a previous finding that depressed people have perfectionistic attitudes toward themselves. They also wanted to show that the dimensions of perfectionism are predictors of depression and that the perfectionism dimensions are associated differentially to depressive symptoms. Hewitt and Flett (1990) administered the Burns Perfectionism Scale (Burns, 1980) which measures self-oriented perfectionism, as defined by Hewitt and Flett (1991a, 1991b), nine newly produced items to measure subjects' motivation to be perfect, reworded items from the Burns Perfectionism Scale to measure other-oriented

perfectionism, the perfectionism subscale from the Irrational Beliefs Test (IBT; Jones, 1969, as cited in Hewitt & Flett, 1990), adjectives that had been previously determined to be indicative of a perfectionistic or neutral description, the Beck Depression Inventory (BDI; Beck, Rush, Shaw, & Emery, 1979, as cited in Hewitt & Flett, 1990), the Zung Self Rating Scale (Zung & Durham, 1965, as cited in Hewitt & Flett, 1990) which measures symptoms of depression, and the Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, &Quinlan, 1976, as cited in Hewitt & Flett, 1990) to 150 subjects.

Hewitt and Flett (1990) found significant correlations between self-oriented perfectionism and the BDI ($r(148) = .47, p < .05$), the Zung ($r(148) = .41, p < .05$), the DEQ self-criticism subscale ($r(148) = .52, p < .05$), and the DEQ efficacy subscale ($r(148) = .29, p < .05$) scores. Other-oriented perfectionism was significantly correlated with the BDI ($r(148) = .43, p < .05$), the Zung ($r(148) = .44, p < .05$), the DEQ self-criticism subscale ($r(148) = .53, p < .05$), and the perfectionistic motivation ($r(148) = .62, p < .05$) scores. There was a significant but low correlation between perfectionistic motivation and the DEQ efficacy scores ($r(148) = .26, p < .05$). This indicates that those who have a high motivation to be perfect also have a positive sense of efficacy. They found that depressed people expressed perfectionistic beliefs about themselves but differed in the extent in which they were motivated to attain perfection. "Greater depression was associated with higher levels of perfectionism for oneself and for others, and this was accompanied by reports of a greater need to be perfect" (Hewitt & Flett, 1990, p. 432). Thus, subjects who were reportedly depressed and perfectionistic also had a greater motivation to be perfect than non-depressed perfectionists and non-perfectionists. Perfectionistic motivation was the greatest predictor of depression in a regression analysis. Self-oriented perfectionism was associated with self-critical depression as measured by the DEQ. Self-oriented perfectionism was associated with high self-efficacy, or high self-confidence. There was also a significant correlation between the perfectionistic adjectives and the DEQ efficacy subscale scores, indicating that perfectionism has a healthy component with respect to feelings of self-confidence and self-efficacy.

From this study (Hewitt & Flett, 1990), research has found that perfectionism is positively

related to feelings of self-efficacy and self-worth. However, perfectionism is also related to depression. High levels of depression were reported in conjunction with a high need to be perfect. It seems that perfectionism motivates perfectionists to strive to achieve high goals and maintain high standards. A correlation between the self-efficacy subscale of the DEQ and depression as measured by the BDI was not performed. Perfectionism has been related to self-critical depression which is indicative of feelings of worthlessness and guilt due to an inability to meet personal standards.

After reviewing the items on the efficacy subscale of the DEQ, it seems that these items are not measuring self-efficacy as defined by Bandura (1986). Bandura (1986) stated that self-efficacy is "a judgement of one's capability to accomplish a certain level of performance" (p. 391). It seems that this subscale is actually measuring perfectionism. For example, these are items from the DEQ efficacy subscale, "I set my goals and standards as high as possible; Other people have high expectations of me" (Blatt, D'Afflitti, & Quinlan, 1979). Using Hewitt and Flett's (1991a) definitions of the three MPS subscales, the first item taps self-oriented perfectionism and the latter item taps socially prescribed perfectionism. Some of the other questions on the efficacy subscale seem to measure self-concept. The following questions are from the efficacy subscale of the DEQ, "I am a very independent person; I am very satisfied with myself and my accomplishments" (Blatt, D'Afflitti, & Quinlan, 1979). This implies that the DEQ efficacy subscale is not measuring self-efficacy as defined by Bandura (1986) and for this reason it will not be used to measure self-efficacy in the present study.

Frost, Marten, Lahart, and Rosenblate (1990) conducted a study to determine if the Multidimensional Perfectionism Scale is "associated with depression and to identify what features of depression are most relevant to perfectionism" (p. 458). Another purpose was to investigate whether perfectionism is related to psychopathological symptoms in non-clinical samples and examine how the symptoms are differentially related to the dimensions. The Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976, as cited in Frost et al., 1990) was used to differentiate self-critical and dependency depression. Self-critical depression includes

feelings of worthlessness and guilt and a tendency to be critical of oneself. Dependency depression includes feelings of helplessness and a tendency to be dependent upon someone else.

Frost et al. (1990) administered the MPS, the DEQ, the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983, as cited in Frost et al., 1990), which is a shortened version of the Symptom Check List-90 (SCL-90), and the Situational Guilt Scale (SGS; Klass, 1987, as cited in Frost et al., 1990) to 72 female undergraduate students. There was a significant pattern of correlations between the BSI scales and the concern over mistakes (nine out of twelve significant correlations, $p < .01$) and doubting of actions (twelve out of twelve significant correlations, $p < .01$) subscales of the MPS. The correlation between perfectionism and the depression scale on the BSI was not significantly greater than the correlations with the other BSI scales. Therefore, "there is little evidence of a unique relationship between perfectionism and depression" (Frost et al., 1990, p. 460). With respect to the DEQ, they found that perfectionism is related to self-critical depression, which is indicative of feelings of worthlessness. The personal standards subscale of the MPS was positively correlated with the efficacy subscale of the DEQ, thus revealing that having high personal standards is related to a positive self-concept. However, they also found that the personal standards subscale is also related to depression, when controlling for efficacy on the DEQ. This indicates that high personal standards may co-exist with feelings of depression as measured by the DEQ. The personal standards subscale was closely related to positive feelings about oneself. This closely resembles what Hamachek (1978) referred to as normal perfectionists, those who accentuate their self-esteem and feel satisfied after working hard and accomplishing their goals. The overall perfectionism score was not related to feelings of guilt.

In another study, Frost et al. (1990) examined the relationship between perfectionism and compulsivity. A second goal was to examine the relationship between perfectionism and procrastination which may be used to avoid failure or inadequacies in performance. They administered the MPS, the Maudsley Obsessive-Compulsive Inventory (MOCI; Rachman & Hodgson, 1980, as cited in Frost et al., 1990) which measures obsessive-compulsive behaviors, the Everyday Checking Behavior Scale (ECBS; Sher, Frost, & Otto, 1983, as cited in Frost et al.,

1990) which measures the frequency of checking behaviors such as checking for keys, and the Procrastination Assessment Scale-Students (PASS; Solomon & Rothblum, 1984, as cited in Frost et al., 1990) which measures the frequency of procrastination, the extent to which procrastination is a problem, and reasons for procrastination. One hundred six female undergraduate students participated in the study. Frost et al. (1990) found that overall perfectionism was significantly related to general compulsivity. Perfectionism was also significantly related to the severity of procrastination. There was also a significant correlation between perfectionism and fear of failure, which is a factor in the PASS reasons for procrastination. The relationship between compulsivity and perfectionism supports the belief that perfectionism is associated with symptoms of psychopathology in non-clinical samples. In this study, the researchers found that perfectionists tend to procrastinate in order to avoid less than perfect performance and failure. Hamachek (1978) had observed this tendency in neurotic perfectionists. In sum, research has found that perfectionism is correlated with periodic depression and feelings of high self-efficacy.

Hewitt, Mittelstaedt, & Flett (1990) conducted a study to investigate the possibility that "perfectionistic self-standards and the expressed need for superior performance in many areas of functioning interact to produce depression" (p. 69). They had 50 college students answer three questionnaires. One questionnaire had them rate fourteen areas in terms of importance of performing well (e.g. psychology, science, and English courses, interpersonal relationships with friends and professors, being neat, physical and academic activities, and cooking). The other two questionnaires were the Burns Perfectionism Scale (Burns, 1980) and the Beck Depression Inventory (Beck, Steer, & Garbin, 1988, as cited in Hewitt et al., 1990). There were no significant correlations. The correlation between perfectionism and depression approached significance, $r(48) = .21$, $p < .15$. This conflicts with previous research (Hewitt & Dyck, 1986; Hewitt & Flett, 1990). Hierarchical regression analyses were performed. There were no significant main effects; however, there was a significant interaction between perfectionistic beliefs and the importance of performing well across many areas in predicting depression, $F(3, 46) = 6.39$, $p < .05$. Hewitt et al. (1990) found that those who have perfectionistic standards for

themselves and strive to perform well in many activities may experience depression. Similarly, Nelson (1977) found that a strong correlate of depression is "a need to excel in all endeavors in order to feel worthwhile as a person" (p. 1191).

Flett, Hewitt, Blankstein, and O'Brien (1991) conducted a study to investigate the extent to which the dimensions of perfectionism are associated with subclinical depression, self-esteem, and individual differences in learned resourcefulness. Subjects completed the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991a), the Beck Depression Inventory (BDI; Beck, Rush, Shaw, & Emery, 1979, as cited in Flett et al., 1991) which measures symptoms of depression, the Self-Control Schedule (SCS; Rosenbaum, 1980, as cited in Flett et al., 1991) which measures the perception of one's ability to control internal events that may interfere with behaviors, and the Rosenberg Self-Esteem Scale (Rosenberg, 1965, as cited in Flett et al., 1991) which measures self-esteem. They found that socially prescribed perfectionism, which is the belief that significant others have perfectionistic expectations and standards for oneself, in college students is more closely related to depression than self- and other-oriented perfectionism. The subjects who scored low in learned resourcefulness or self-control and high in socially-prescribed perfectionism reported the highest levels of depression. Subjects who reported greater levels of self-control experienced lower levels of depression. Greater self-control was also associated with self- and other-oriented perfectionism. Low self-esteem was associated with greater socially-prescribed perfectionism. In this study, self-oriented perfectionism was not associated with depression or self-esteem. This study has shown that low learned resourcefulness or low self-control is associated with both depression and socially prescribed perfectionism.

Setting high standards for oneself and working to achieve those goals is normal perfectionistic behavior as described by Hamachek (1978). Frost et al. (1990) identified the setting of high standards for oneself as being related to a positive self-concept or feelings of self-efficacy. Flett et al. (1991) found that perfectionists who were low in learned resourcefulness, or feelings of the ability to control internal events, experienced depression. It may be that when one does not achieve one's goals and feels as though one cannot control the failure to achieve those goals that

depression results.

Mittelstaedt and Wollert (1991) hypothesized that "the self-blaming personality style would predict depressed mood reactions" (p. 4). The researchers used the Defense Mechanisms Inventory (Gleser & Ihilevich, 1969, as cited by Mittelstaedt and Wollert, 1991) to measure blame, the Attributional Style Questionnaire Scales (ASQ; Peterson, Semmel, Von Baeyer, Abramson, Metalsky, & Seligman, 1982, as cited by Mittelstaedt and Wollert, 1991) to measure causal attributions, and the Depression Adjective Checklist (DACL; Lubin, 1965, as cited by Mittelstaedt and Wollert, 1991) to measure depression. The Defense Mechanisms Inventory has two subscales: turning against self (TAS) and turning against object (TAO). The 58 female subjects completed three tasks and were provided with different levels of personal importance in obtaining high scores on their performance. All subjects were told that the tests measured their ability to academically and socially succeed at the university and their potential success in a professional career. The importance and validity of the qualities being measured and the prestige of the test developers were emphasized to one group. In the other group, these qualities and the test makers were discredited and the subjects were told that they were collecting data for class experiments. For the first task, two figures were projected on a screen and the subjects had to determine if they were identical within seven seconds. The subjects were told that both the accuracy and latency of their response would determine their score. For the second task, a pair of words were projected on a screen and the experimenter orally read a third word. The subjects had to state which of the projected words was associated with the read word. The third task was a questionnaire that posed complaints from clients about a therapist. There were four responses from which to choose. Subjects were told that their performance was below average regardless of their score and then their mood was assessed. Mood and TAS were significantly correlated. Subjects' moods were more depressed when the task was thought to be important rather than meaningless. They found that "the blaming personality style, regardless of whether it is directed towards oneself or others, is a predisposing factor in the development of dysphoric reactions to misfortune" (Mittelstaedt & Wollert, 1991). Thus, if subjects have a self-blaming personality style and are manipulated into

believing that they failed an important task, they are likely to experience depression. The self-blaming personality is a characteristic of perfectionists. Hamachek (1978) observed this tendency in neurotic perfectionists. Frost et al. (1990) also found this tendency in their literature review and measure it with a subscale, concern over mistakes, on the MPS.

Frost, Heimberg, Holt, Mattia, and Neubauer (1993) administered the Frost et al. (1990) MPS, the Hewitt and Flett (1991a) MPS, the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961, as cited in Frost et al., 1993), and the Positive Affect-Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988, as cited in Frost et al., 1993), which is a self-report mood scale that measures positive and negative affect, to 553 undergraduate students. From the Frost et al. MPS, the overall perfectionism score, concern over mistakes, parental criticism, and doubts about actions, and from Hewitt and Flett's MPS, the socially prescribed perfectionism scale were significantly and positively correlated with scores from the BDI and negative affect but not with positive affect. The Frost et al.'s personal standards and organization subscales and Hewitt and Flett's self-oriented perfectionism were significantly and positively correlated with positive affect but not with negative affect. This may reflect the positive aspects of perfectionism. Hewitt and Flett's other-oriented perfectionism scale was not significantly correlated with positive or negative affect. Frost et al. (1993) factor analyzed the two measures of perfectionism; two distinct factors emerged: maladaptive evaluation concerns and positive strivings. They found that maladaptive evaluation concerns (Frost et al. (1990) MPS's concern over mistakes, parental criticism, parental expectations, and doubts about actions subscales; Hewitt and Flett (1991a) MPS's socially prescribed perfectionism scale) was positively correlated with the BDI and negative affect and positive strivings (Frost et al. (1990) MPS's personal standards and organization subscales; Hewitt and Flett (1991a) MPS's self-oriented and other-oriented perfectionism scales) was positively correlated with positive affect.

Previous research has suggested that perfectionists become depressed when they fail to reach their unrealistic goals (Hewitt & Dyck, 1986; Hewitt & Flett, 1991). However, the causal role of perfectionism in depression has not been established. Preusser, Rice, and Ashby (1994)

believe that the path between perfectionism and depression is indirect. Preusser et al. (1994) conducted a study to examine the mediational role of self-esteem in the relationship between perfectionism and depression. They administered the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991a), the Rosenberg Self-Esteem Scale (Rosenberg, 1965, as cited in Preusser et al., 1994), and the Beck Depression Inventory (BDI; Beck, 1978, as cited in Preusser et al., 1994) to 167 undergraduate students. For women, both self-oriented and socially prescribed perfectionism subscales were significantly correlated with the BDI ($r(122) = .16$ and $r(122) = .25$, $p < .05$, respectively). The three subscales, self-oriented, other-oriented, and socially prescribed perfectionism, were significantly and negatively correlated with the Rosenberg Self-Esteem Scale ($r(122) = -.34$, $r(122) = -.20$, and $r(122) = -.44$, $p < .05$, respectively). For men, the self-oriented and socially prescribed perfectionism subscales were significantly correlated with the BDI ($r(41) = .31$ and $r(41) = .30$, $p(41) < .05$, respectively); however, only socially prescribed perfectionism was significantly and negatively correlated with the Rosenberg Self-Esteem Scale ($r(41) = -.33$, $p < .05$). The BDI and Rosenberg Self-Esteem Scale were significantly and negatively correlated for both women and men ($r(165) = -.49$ and $r(165) = -.43$, $p < .05$, respectively). Therefore, greater depression is associated with lower self-esteem.

Preusser et al. (1994) conducted a series of regression analyses on the data, using self-esteem as the mediator of perfectionism and depression. The various perfectionism subscales were the independent variables and depression was the dependent variable. For both men and women, self-esteem was a mediator in the relationship between depression and socially prescribed perfectionism ($F(2,40) = 5.4$, $p < .01$ and $F(2,121) = 19.0$, $p < .005$). Self-esteem was also a mediator in the relationship between depression and self-oriented perfectionism in women only ($F(2,121) = 18.9$, $p < .005$). Preusser et al. (1994) stated that "the results revealed some, but not complete, support for the mediational model" (p. 90). They suggest that self-efficacy may be the mediator, instead of self-esteem, in the relationship between perfectionism and depression.

Rationale for the Current Research

Past research has indicated that a relationship between perfectionism and depression exists. This research has also implied that there is a relationship between perfectionist's self-concept and depression. Hollender (1965) and Hamachek (1978) both observed that perfectionists lack self-acceptance and self-esteem; they therefore have an unfavorable self-image. Perfectionists set unrealistically high goals for themselves. When they do not achieve these goals, they feel as though they have failed and become depressed. Burns (1983) found that perfectionists must excel and achieve their goals in order to gain self-esteem. Perfectionists also tend to focus on their past failures. This research focused on perfectionism as a unidimensional construct.

Research on perfectionism as a multidimensional construct has also found a relationship between perfectionism and depression. Frost, Marten, Lahart, and Rosenblate (1990) found that perfectionism is related to self-critical depression, as measured by the Depressive Experiences Questionnaire, which is indicative of feelings of worthlessness. They also found that those with high personal standards often report greater depression than those who score low on personal standards. Flett, Hewitt, Blankstein, and O'Brien (1991) found that in a college population, socially prescribed perfectionism was correlated with depression and low learned resourcefulness which is similar to low self-esteem and an external locus of control. Frost, Heimberg, Holt, Mattia, and Neubauer (1993) found that socially prescribed perfectionism (MPS; Hewitt & Flett, 1991a) and the overall perfectionism score (MPS; Frost et al., 1990) were related to depression and negative affect. Preusser, Rice, and Ashby (1994) found that self-esteem was the mediator in the relationship between depression and socially prescribed perfectionism. In addition, self-esteem was also the mediator in the relationship between self-oriented perfectionism and depression in women only. Subjects who reported greater depression also reported lower self-esteem.

With respect to failure, Pirot (1986) found that when perfectionists encounter failure, they experience a loss of self-esteem which leads to depression. Also Mittelstaedt and Wollert (1991) found that when people failed at a task that they believed was important, they became depressed.

There are also positive aspects of perfectionism. Hamachek (1978) recognized that there are normal perfectionists. He observed that normal perfectionists have feelings of self-acceptance

and self-esteem. Pirot (1986) found that perfectionists who accepted themselves also had feelings of an internal locus of control. As a multidimensional construct, Hewitt and Flett (1990) found that people who are motivated to be perfect also have a positive self-concept. Frost, Marten, Lahart, and Rosenblate (1990) identified that perfectionists with high standards also have a positive self-concept. Flett, Hewitt, Blankstein, and O'Brien (1991) discovered that perfectionists with high self-control report low depression. Frost, Heimberg, Holt, Mattia, and Neubauer (1993) found that self-oriented perfectionism (MPS; Hewitt & Flett, 1991a) and personal standards (MPS; Frost et al., 1990) are positively correlated with positive affect

"Individuals who are prone to depression impose upon themselves high performance demands and devalue their accomplishments because they fall short of their exacting standards" (Bandura, 1986, p. 447). It does not seem that perfectionism alone could cause depression. After all, setting high performance standards is realistic if one has a high ability level (Hamachek, 1978). Setting and meeting high standards can be a source of pride, self-satisfaction, and admiration, not depression (Hamachek, 1978). However, depression may result when one does not believe one has the ability to accomplish one's goals, and/or when one's goals are set too high (Bandura, 1986). The concept of self-efficacy may address a mediating factor in the relationship between perfectionism and depression. Self-efficacy is defined as "a judgement of one's capability to accomplish a certain level of performance" (Bandura, 1986, p. 391).

Individuals who have excessively high minimal goal levels are not likely to achieve their goals. Therefore, high minimal goal levels have been associated with unhappiness and maladjustment (Rotter, Chance, & Phares, 1972). Thus, perfectionists are likely to be unhappy or maladjusted. Individuals with feelings of high self-efficacy are motivated to achieve success; however, when standards are set above one's perceived self-efficacy to attain these goals, depression is likely to result (Bandura, 1986). "Personality traits, such as perfectionism, interact with environmental contingencies, such as failure experiences, to produce depression" (Hewitt, Mittelstaedt, & Flett, 1990, p. 68). It has also been proposed that "self-oriented perfectionism is related to poor adjustment only after the perfectionist has encountered some form of stress, either

in the form of a failure outcome or the experience of a negative life event" (Flett, Hewitt, Blankstein, & O'Brien, 1991, p. 66; Hewitt & Flett, 1991b). I will examine these possible relationships in my research. I hypothesize that:

(1) The correlational relationship between perfectionism and depression discovered by Hewitt and Flett (1990) may be replicated;

(2) Perfectionists who have low self-efficacy will become depressed when they experience failure, and they will attribute their failure to their lack of ability;

(3) Perfectionists who have high self-efficacy will not become depressed when they experience failure and they will attribute their failure to their lack of effort.

## Study 1

Study 1 attempted to replicate the relationship between perfectionism and depression that has been discovered by Hewitt and Flett (1990). This relationship shows that perfectionists, as measured by the Hewitt and Flett Multidimensional Perfectionism Scale (MPS; 1991a), are vulnerable to depression, as measured by the Beck Depression Inventory (BDI; Beck, 1978).

## Method

*Subjects*

Sixty-eight female subjects volunteered to participate in this study. Data for analyses came from 60 subjects' completed questionnaires. All subjects came from a small liberal arts women's college in southwestern Virginia. The subjects were from all four academic classes: first-year (n=26), sophomore (n=20), junior (n=5), and senior (n=9). They ranged in age from 18-22 (M = 19.2) years of age.

*Materials*

Subjects signed a release form that described the study, assured confidentiality of all their responses, and advised them of their right to withdraw from the study at any time. There was also a personal information form which subjects were asked to fill out for statistical purposes. This form asked for their name, age, year in school, number of siblings, birth order, and place of birth. The following tests were used in the present study.

The Multidimensional Perfectionism Scale (Frost, Marten, Lahart, & Rosenblate, 1990): The MPS is a 35-item self-report questionnaire that assesses perfectionism across six broad perfectionistic tendencies: personal standards, concern over mistakes, parental expectations, parental criticism, doubts about actions, and organization. It also provides an overall perfectionism

score. Subjects rate their agreement with the statements on a 5-point scale that ranges from strongly disagree (1) to strongly agree (5).

The Multidimensional Perfectionism Scale (Hewitt & Flett, 1991a): The MPS is a 45-item self-report questionnaire that assesses perfectionism on three dimensions: self-oriented, other-oriented, and socially prescribed perfectionism. Subjects rate their agreement with the statements on a 7-point scale that ranges from strongly disagree (1) to strongly agree (7). Self-oriented perfectionism is "an intrapersonal dimension characterized by a strong motivation to be perfect, setting and striving for unrealistic self-standards, focusing on flaws, and generalization of self-standards" (Hewitt & Flett, 1991b, p. 98). Other-oriented perfectionism includes similar behaviors as self-oriented perfectionism, "but these behaviors are directed toward others instead of toward the self" (Hewitt & Flett, 1991b, p. 98). This component takes into account the social context surrounding the behavior. The third dimension, socially prescribed perfectionism, involves the "belief that others have perfectionistic expectations and motives for oneself" (Hewitt & Flett, 1991b, p. 98). Some perfectionists tend to feel that significant others expect them to be perfect.

The Beck Depression Inventory (Beck & Steer, 1987): The BDI is a 21-item self-report questionnaire that assesses the severity of depressive symptoms in normal adolescent and adult populations. The questions measure cognitive, affective, and physiological symptoms. Subjects respond to a set of statements and choose the statement(s) that best describes the way they have felt during the past week, including the day of administration. The statements are rated on a 4-point scale that ranges from 0 to 3.

The Interpersonal Concerns Questionnaire (Ahrens, Zeiss, & Kanfer, 1988): The ICQ is a 24-item self-report questionnaire that assesses subjects' levels of self-efficacy with respect to interpersonal behaviors. Subjects check items if they believe that they have the ability to perform the given tasks. For the tasks that they believe they can perform, they rate how well they believe they can perform the tasks on a 10-point scale that ranges from poorly (1) to perfectly (10).

The release form, personal information form, and all the questionnaires are included in

Appendix B.

*Procedure*

The experimenter went to three primarily underclasswomen residence halls. She went from door to door asking all students who were present if they wished to participate in the study. She introduced herself and explained that she was seeking volunteers to participate in a study about college-aged women's beliefs about and expectations for themselves. Subjects were provided with information about the study and assured of the confidentiality of their responses. When subjects agreed to participate, they were asked to sign a release form which guaranteed them the opportunity to withdraw from the study at any time. They were also asked to sign a notepad next to the number that corresponded to the number on their questionnaires. The number on the notepad was to enable the researcher to identify subjects at a later date for a second study.

The four questionnaires and the personal information form were included in an envelope. The presentation of questionnaires was counterbalanced so as to control for order effect. The estimated time to complete the questionnaires was thirty minutes. The envelope and the questionnaires all had numbers on them. The release form was separated from the questionnaires and signed prior to participating in the study. There was a form in the envelope with the names of and the telephone numbers of the researcher, the researcher's advisor, and the college counselor. Subjects were encouraged to contact one of these people with questions or concerns about the questionnaires or their responses. Subjects left the questionnaires in the sealed envelope outside of their dormitory doors and the experimenter collected them at a later time.

## Results

The relationship between perfectionism and depression

The hypothesis for Study 1 was that there would be a positive correlation between perfectionism and depression. In concordance with previous findings (Flett, Hewitt, Blankstein,

& O'Brien, 1991), a significant positive correlation between the socially prescribed perfectionism subscale of the MPS (Hewitt & Flett, 1991a) and the BDI, $r(58) = .4223$, $p < .01$, was obtained. There was also a significant positive correlation between the overall perfectionism score of the Frost et al. MPS (1990) and the BDI, $r(58) = .3055$, $p < .05$. These results are on the following page, in Table 1. With respect to both MPSs, as perfectionism increases, depression increases. In sum, the previous finding of the significant positive correlation between perfectionism, as measured by the Hewitt and Flett MPS, and depression, as measured by the BDI, has been replicated.

Previous findings by Frost et al. (1993) were also replicated. Significant positive correlations were obtained for the BDI and the following subscales from the Frost et al. MPS (1990): concern over mistakes ($r(58) = .3874$, $p < .01$), parental criticism ($r(58) = .3231$, $p < .05$), and doubts about actions ($r(58) = .3447$, $p < .01$).

Stepwise multiple regression analyses were conducted to determine the best predictors of depression. Depression as measured by the BDI was the dependent variable. The socially prescribed perfectionism subscale from the Hewitt and Flett MPS (1991a) was the best predictor of depression. The next best predictor of depression was self-efficacy as measured by the Interpersonal Concerns Questionnaire (ICQ; Ahrens, Zeiss, & Kanfer, 1988). The combined effect of these variables was significant, $F(2, 57) = 13.9279$, $p < .00001$. These results are in Table 2.

Other significant findings

A significant negative correlation between self-efficacy as measured by the ICQ and the BDI, $r(58) = -.4020$, $p < .01$, was obtained. As self-efficacy increases, depression decreases. The three subscales of the Hewitt and Flett MPS were positively correlated with the overall perfectionism score from the Frost et al. MPS. The overall perfectionism score was correlated with self-oriented perfectionism ($r(58) = .6541$, $p < .01$), other-oriented perfectionism ($r(58) = .5812$, $p < .01$), and socially prescribed perfectionism ($r(58) = .7659$, $p < .01$). The concern

Table 1

Intercorrelations between the MPS (Hewitt & Flett), the MPS (Frost et al.), the BDI, and the ICQ

| | BDI | PE | O | PC | PS | CM | D | OP | ICQ | SO | OO | SP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BDI | 1.0000 | .1116 | -.1416 | .3231* | -.0148 | .3874** | .3447** | .3055* | -.4020** | .0961 | .2095 | .4223** |
| PE | | 1.0000 | -.0673 | .5949** | .1849 | .3415** | .1077 | .6166** | .0322 | .1463 | .4147** | .5676** |
| O | | | 1.0000 | -.0355 | .2940 | -.0314 | .0007 | .0723 | .1568 | .3172* | .0641 | -.0738 |
| PC | | | | 1.0000 | .1856 | .5542** | .3616** | .7451** | -.0269 | .2756* | .4805** | .5554** |
| PS | | | | | 1.0000 | .3180 | -.2149 | .4640** | .3489 | .7030** | .5767** | .1965 |
| CM | | | | | | 1.0000 | .6535** | .8977** | -.1120 | .6250** | .4555** | .7121** |
| D | | | | | | | 1.0000 | .6237** | -.1435 | .3950** | .2211 | .5338** |
| OP | | | | | | | | 1.0000 | -.0096 | .6541** | .5912** | .7659** |
| ICQ | | | | | | | | | 1.0000 | .1422 | .2727* | -.0357 |
| SO | | | | | | | | | | 1.0000 | .4602** | .3952** |
| OO | | | | | | | | | | | 1.0000 | .3963** |
| SP | | | | | | | | | | | | 1.0000 |

Note.

BDI = Beck Depression Inventory

Hewitt & Flett MPS subscales:

SO = Self-Oriented Perfectionism

OO = Other-Oriented Perfectionism

SP = Socially Prescribed Perfectionism

ICQ = Interpersonal Concerns Questionnaire (self-efficacy)

*Significant, $p < .05$

**Significant, $p < .01$

Frost et al. MPS subscales:

PE = Parental Expectations

O = Organization

PC = Parental Criticism

PS = Personal Concerns

CM = Concern Over Mistakes

D = Doubts About Actions

OP = Overall Perfectionism Score

over mistakes subscale from the Frost et al. (1990) MPS was significantly and positively correlated with the overall perfectionism score of the Frost et al. MPS (1990) ($r(58) = .8977, p < .01$) and the three subscales of the Hewitt and Flett MPS (1991a), self-oriented perfectionism ($r(58) = .6250, p < .01$), other-oriented perfectionism ($r(58) = .4555, p < .01$), and socially prescribed perfectionism ($r(58) = .7121, p < .01$). These intercorrelations are in Table 1.

Table 2
Stepwise Multiple Regression Analysis on Depression as Measured by the BDI

| N = 60 | R = .5730 | $R^2$ = .3283 | $R_{Adj}^2$ = .3047 | SE = 4.9592 | |
|---|---|---|---|---|---|
| Variable | *b* | *SE of b* | β | *t* | *p** |
| Constant | 14.7057 | 5.0741 | 0.0000 | 2.8980 | .0053 |
| ICQ | -2.1844 | .6125 | -.3874 | -3.5670 | .0007 |
| SP | .1766 | .0470 | .4085 | 3.7600 | .0004 |
| | | Analysis of Variance | | | |
| Source | *df* | *SS* | *MS* | *F* | *p* |
| Regression | 2 | 685.0816 | 342.5409 | 13.9279 | .00001 |
| Residual | 57 | 1401.8516 | 24.5939 | | |

*Two-tailed
Note--ICQ = Interpersonal Concerns Questionnaire, measuring self-efficacy; SP = Socially Prescribed Perfectionism from the MPS (Hewitt & Flett, 1991a), measuring perfectionists' beliefs that others have perfectionistic expectations for them.

## Study 2

The purpose of Study 2 was to test two hypotheses. It was hypothesized that perfectionists

with low self-efficacy would become depressed after experiencing failure and attribute their failure to their lack of ability. It was also hypothesized that perfectionists with high self-efficacy would not become depressed after experiencing failure and attribute their failure to their lack of effort. Subjects that participated in the present study previously had participated in Study 1. In this double-blind experiment, the researcher was specifically examining both positive and negative affect after the subjects experienced failure and to what the subjects attributed their failure.

## Method

*Subjects*

Thirty-two undergraduate females volunteered to participate in this study. All of the subjects participated in Study 1.

*Materials*

Subjects completed the Remote Associates Test (RAT; Mednick & Mednick, 1959). The RAT is "a measure of the ability to think creatively...designed to measure individual differences in an ability considered to be fundamental to the creative thinking process" (Mednick & Mednick, 1967, p. 1). Subjects form mediating connections between sets of three words that are seemingly remote. There were two tests that consisted of ten items each. The practice test contained ten easy items (McFarlin & Blascovich, 1984). The actual test contained ten difficult items (McFarlin & Blascovich, 1984). These tests are in Appendix C.

The post-task questionnaire was created to measure to what the subjects attribute (external or internal circumstances) their failure on the RAT. The subjects were asked to rate the extent to which their score reflected their effort, luck, verbal abilities and/or intelligence, and the ease of the test. A semantic differential scale was used to measure the subjects' current affect (positive or negative). It tapped the following feelings: good/bad, pleasant/unpleasant, happy/sad, agreeable/agitated, cheerful/hostile, amused/enraged, sociable/unsociable, hopeful/hopeless, and

joyful/upset. This questionnaire is in Appendix C.

*Procedure*

Subjects were divided into four groups based on their scores from the Frost et al. Multidimensional Perfectionism Scale (MPS; 1990) and the Interpersonal Concerns Questionnaire (ICQ; Ahrens, Zeiss, & Kanfer, 1988). These groups formed a 2 (high perfectionism vs. low perfectionism) X 2 (high self-efficacy vs. low self-efficacy) design.

All subjects signed a release form that stated what they would do during the study, ensured them of the confidentiality of their responses, and advised them of their right to withdraw from the study at any time. This release form is in Appendix C. The researcher met with each subject individually. The researcher explained that the tests they were about to take measured college-aged women's reasoning abilities. After the tests there was a brief questionnaire about the subjects' feelings. There were two tests. The first was a practice test. The subjects could ask the researcher for assistance during the practice test. The second test was the actual test; the subjects could not ask for assistance. The subjects were given ten minutes to complete each test. The researcher gave subjects warnings when there were five minutes and one minute remaining. After each test was completed, the researcher discussed the answers to the items. For the actual test, the researcher calculated a percent correct for each subject and recorded it on their tests. After completing the tests and receiving failing percentages, subjects completed the post-task questionnaire.

Once the questionnaire was completed and subjects gave the packet of tests to the researcher, the subjects were completely debriefed.

## Results

There were two hypotheses for the present study. The first hypothesis for Study 2 was that perfectionists with low self-efficacy would become depressed when they experienced failure, and they would attribute their failure to their lack of ability. The second hypothesis was that

perfectionists with high self-efficacy would not become depressed when they experienced failure, and they would attribute their failure to their lack of effort. Two way ANOVAs were used to analyze the data.

Eight 2 (high perfectionism vs. low perfectionism) X 2 (high self-efficacy vs. low self-efficacy) ANOVAs were performed. The ANOVA tables are in Appendix A. The dependent variables were the questions on the post-task questionnaire. These questions measured the subjects' affect and the extent to which they attributed their score to internal and external reasons. All of the subjects received a failing grade, ranging from 0% to 60%. The grade that the subjects indicated they would have assigned themselves did not vary with self-efficacy and/or perfectionism. These means are listed in Table 3. The actual number of correct responses on the RAT interacted with self-efficacy and perfectionism. This interaction approached significance, $F(1, 31) = 3.105$, $p < .089$. One group, the low perfectionists and high self-efficacy subjects, answered more RAT items correctly ($M = 2.5000$) than the other three groups. This trend was followed by the high perfectionism and low self-efficacy ($M = 2.3750$), low perfectionism and low self-efficacy ($M = 2.1250$), and high perfectionism and high self-efficacy ($M = 1.1250$) groups. Although one group responded correctly to more items, all subjects psychologically experienced failure.

Table 3
Grades that subjects would have assigned themselves after receiving a failing percentage

| | High Self-Efficacy | Low Self-Efficacy |
|---|---|---|
| High Perfectionism | 1.2500 | 1.6250 |
| Low Perfectionism | 1.3750 | 1.2500 |

Note--Grades were assigned the following numbers: F = 1, D = 2, C = 3, B = 4, A = 5.

The hypotheses predict that there would be an interaction between perfectionism and self-efficacy with respect to attributions of failure to effort ($F$ (1, 31) = 2.047, *ns*) and ability ($F$ (1, 31) = 2.133, *ns*). These hypotheses were not supported; however, other interesting findings were discovered.

A significant main effect for perfectionism was found for attributions to luck, $F(1, 31) = 4.8930$, $p < .035$. Subjects who scored high on perfectionism more strongly believed that their failure was due to luck ($M = 1.2111$) than the subjects who scored low on perfectionism ($M = .5774$).

The semantic differential scale asked the subjects to rate their affect immediately after failing the RAT. The semantic differential items were summed to obtain an overall score of positive/negative affect. Higher scores indicate more negative affect. Subjects who scored high on self-efficacy had lower scores ($M = 34.7500$; $M = 23.3750$), indicating less negative affect, than the subjects who scored low on self-efficacy ($M = 36.8750$; $M = 40.1250$). There was also an interaction effect between perfectionism and self-efficacy, $F = 5.2740$, $p < .029$. The means for the four groups are listed in Table 4. One group, the low perfectionists with high self-efficacy, significantly differs from the other three groups. This group reported the least negative affect.

Table 4
Overall negative affect as measured by the semantic differentials for all four groups of subjects

| | High Self-Efficacy | Low Self-Efficacy |
|---|---|---|
| High Perfectionism | 34.7500[a] | 36.8750[a] |
| Low Perfectionism | 23.3750[b] | 40.1250[a] |

Note--Means with a common superscript do not significantly differ from each other ($p < .05$) by the Newman-Keul's Multiple-Range Test. Higher scores indicate more negative affect.

A main effect trend for self-efficacy, $F = 3.3220$, $p < .0790$, and an interaction effect

trend for perfectionism and self-efficacy, $F = 3.3220$, $p < .079$, were found for attributions to task difficulty. Low perfectionistic subjects who scored high on self-efficacy tended to attribute task difficulty as a reason for their failure ($M = 3.0000$) more than the low perfectionists with low self-efficacy ($M = 1.6250$). High perfectionistic subjects attributed their failure to the task difficulty equally, regardless of their self-efficacy score, ($M = 2.5000$).

## Discussion and Conclusions

The hypothesis for Study 1 was supported. The data from this study confirms that a positive correlation between perfectionism and depression exists in college-aged populations (Hewitt & Flett, 1990). This relationship may be indicative of college-aged women striving to be perfect and failing to reach their unrealistic goals. Thus, they become depressed. It is possible that perfectionists who become depressed experience feelings of worthlessness and have low self-efficacy.

The stepwise multiple regression analyses further confirm the relationship between perfectionism and depression. Socially prescribed perfectionism in college-aged women is the best predictor of depression. This type of perfectionist as defined by Hewitt and Flett (1991a, 1991b) believes that significant others in their life have unrealistic and perfectionistic standards and expectations for them. When they fail to meet these perceived standards, they become depressed. It seems that these perfectionists have a greater need to be perfect so as to please the significant others in their life. The next best predictor of depression is self-efficacy. Self-efficacy as defined by Bandura (1986) is the belief that one has the ability to operate at a certain level of performance. When one fails to achieve this level of efficacy, and therefore has low self-efficacy, then one becomes depressed. It follows that one would become depressed if the task is deemed important to oneself and one is not able to perform the task adequately.

An interesting finding was the relationship between self-efficacy and depression. As self-efficacy increases, depression decreases. This finding corresponds to the above finding of self-

efficacy as a predictor of depression. Those who believe that they have the ability to perform an important task well are less likely to become depressed than those who believe that they cannot achieve a specified level of performance. This result may be a positive finding with respect to perfectionism. Perfectionists with high self-efficacy are less likely than those with low self-efficacy to become depressed. However, perfectionism and self-efficacy are not significantly correlated.

The three subscales of the Hewitt and Flett MPS (1991a) were all intercorrelated. In essence, this indicates that the three subscales are all measuring the same attributes or attitudes in perfectionists. This is what Hewitt and Flett (1991a) had found. Referring to perfectionism as being multidimensional may be misleading, especially after reviewing the many intercorrelations among the subscales of the two MPSs. When Hewitt and Flett (1991a) define perfectionism as multidimensional, they state that the perfectionistic attitudes that they are measuring in perfectionists are the same; however, it is to whom the attitudes are directed that differs. Frost, Marten, Lahart, and Rosenblate (1990) had found reoccurring tendencies in perfectionists prior to creating their MPS. The subscales on their MPS measure these common tendencies in perfectionists. They state that perfectionists possess to some extent each of the tendencies; however, they may posses one trait more than another. The scores for the subscales are summed to create an overall perfectionism score. This finding is integral in support of the two Multidimensional Perfectionism Scales (Frost et al., 1990; Hewitt & Flett, 1991a) measuring the same attitudes or beliefs in perfectionists.

The overall perfectionism score that the Frost et al. MPS (1990) provides was significantly and positively correlated with all three of the Hewitt and Flett MPS (1991a) subscales. This reveals that the two tests are measuring many of the same attitudes or beliefs that perfectionists exhibit. This is an important discovery since both scales claim to measure perfectionism multidimensionally. An interesting study would be to use both of these scales in a clinical population. It is a recent trend to consider perfectionism as being psychopathological. In order to be able to generalize the results that are found in non-clinical samples, it would be necessary to use

the scales in clinical samples.

Frost, Marten, Lahart, and Rosenblate (1990) stated that the concern over mistakes subscale of their MPS is actually an over concern for mistakes, a very common perfectionistic tendency. This subscale was highly correlated with the overall perfectionism score from the same MPS and was also significantly correlated with the three subscales from the Hewitt and Flett MPS (1991a). This supports the notion that the most common tendency in perfectionists is an over concern for mistakes. Hamachek (1978) had noted that a difference between neurotic and normal perfectionists is that neurotic perfectionists focus on flaws and mistakes.

The two hypotheses for Study 2 were not supported. Both hypotheses predicted that perfectionists would attribute their failure to internal sources, such as effort and ability. However, perfectionists attributed their failure more to luck than internal attributions. This is interesting to note because previous research (Hamachek, 1978; Frost, Marten, Lahart, & Rosenblate, 1990) has found that perfectionists focus on their flaws and mistakes and experience feelings of self-deprecation. This would indicate that perfectionists internalize their mistakes and failures. The perfectionists in this study did not seem to experience those feelings.

In response to the failure experience, regardless of being a high or low perfectionist, subjects with high self-efficacy reported less negative affect than did those with low self-efficacy. The high self-efficacy subjects believed that they could perform the task adequately and when they failed, they did not seem to internalize the results, as indicated by their responses to the attribution questions. Subjects with low self-efficacy reported more negative affect than the high self-efficacy subjects. Low perfectionists with high self-efficacy reported the least negative affect. This result was unexpected. It was surprising that the high perfectionists with low self-efficacy did not report more negative affect. Based on previous research (Bandura, 1986; Hamachek, 1978; Frost et al., 1990), one would have been led to believe that the high perfectionists with low self-efficacy would have reported the most negative affect. There was not a significant difference between the amount of negative affect reported by the high perfectionists with low self-efficacy and the low perfectionists with low self-efficacy. The high perfectionists may have experienced more negative

affect than they reported. They also may have used external attributions for their failure as a defense mechanism.

Low perfectionistic subjects with high self-efficacy tended to attribute their failure to the difficulty of the task. They did not internalize the failure but recognized the external source that caused them to fail. This was the most realistic attribution. Perfectionistic subjects with both high and low self-efficacy equally attributed their failure to the difficulty of the task.

There were a few limitations to the present studies. Foremost, all of the findings are correlational in nature. They do not provide conclusive evidence that perfectionism causes depression, or vice versa, in college-aged women. The cause of depression in perfectionists has not yet been discovered. This is an issue for future empirical research. The cause of the relationship between perfectionism and depression with self-efficacy as a mediator has not been established. The use of a small sample of undergraduate women in this study limits the generalizability of the findings. It is possible that the relationship between perfectionism and depression that was replicated in this study may be even more or less pronounced in a clinical population or a coeducational college population. This is an issue for further research.

The research from the first study replicated previous findings. It replicated the relationship between perfectionism and depression that had been found by Hewitt and Flett (1990, 1991b). More importantly, the research has illuminated the multidimensionality of the perfectionism construct. It has also shown how the two main scales that are used to measure perfectionism multidimensionally are related to each other. This has practical applications for future research in non-clinical and clinical settings as well as in educational settings. These scales may be used to identify the perfectionistic attitudes, such as focusing on flaws, generalizing failure, and setting unrealistically high goals, and then those attitudes can be differentially reinforced so as to produce healthy behaviors and eliminate the unhealthy behaviors.

Although the hypotheses for the second study were not supported, there is evidence of the role that failure has in the lives of both high and low perfectionistic college students. Those who have low self-efficacy experienced more negative affect after the failure experience than those with

high self-efficacy. These subjects did not necessarily become depressed after the failure task. Repeated failure on tasks that are deemed important to the subjects may lead to depression. In future research, if ethical, it would be interesting to note the differences in subjects' affect after failing a task that they deemed important.

Both Hamachek (1978) and Hollender (1965) made an interesting point that perfectionism was a learned behavior and that all learned behaviors can be unlearned. A thorough investigation of this idea could be completed through a longitudinal study. Through cognitive behavioral techniques, subjects could learn healthy perfectionistic behaviors and gain high self-efficacy through realistic successes. One of the most important behaviors that they would have to learn is how to set realistic goals and how to put failure experiences into perspective. With extremely high minimal goals, subjects would be bound to experience failure. Without high self-efficacy, subjects may easily experience a range of negative affect leading to depression.

In conclusion, the results of both of the studies have interesting applications. Perfectionism is not usually viewed as a disorder; however, in light of the relationship between perfectionism and depression, parents, educators, and researchers need to be aware of it. It is also important to identify the mediating variables in this relationship. Thus one could enact preventive measures prior to one's perfectionism leading to depression.

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# Appendix A

## Eight 2 X 2 ANOVAs

Table 1
ANOVA summary table for question 1 (To what extent do you believe you were able to answer all of the items correctly?) on the post-task questionnaire

| Source | *df* | *SS* | *MS* | *F* | *p* |
|---|---|---|---|---|---|
| Perfectionism | 1 | 1.125 | 1.125 | 1.059 | .312 |
| Self-Efficacy | 1 | .500 | .500 | .471 | .498 |
| Perfectionism X Self-Efficacy | 1 | .125 | .125 | .118 | .734 |
| Within Groups | 28 | 29.750 | 1.063 | | |
| Total | 31 | 31.500 | 1.016 | | |

*Significant

Table 2
ANOVA summary table for question 2 (To what extent is your score a result of how hard you tried?) on the post-task questionnaire

| Source | *df* | *SS* | *MS* | *F* | *p* |
|---|---|---|---|---|---|
| Perfectionism | 1 | .500 | .500 | .327 | .572 |
| Self-Efficacy | 1 | .500 | .500 | .327 | .572 |
| Perfectionism X Self-Efficacy | 1 | 3.125 | 3.125 | 2.047 | .164 |
| Within Groups | 28 | 42.750 | 1.527 | | |
| Total | 31 | 46.875 | 1.512 | | |

*Significant

Table 3
ANOVA summary table for question 3 (To what extent is your score a result of luck?) on the post-task questionnaire

| Source | *df* | *SS* | *MS* | *F* | *p* |
|---|---|---|---|---|---|
| Perfectionism | 1 | 4.500 | 4.500 | 4.893 | .035* |
| Self-Efficacy | 1 | 1.125 | 1.125 | 1.223 | .278 |
| Perfectionism X Self-Efficacy | 1 | .125 | .125 | .136 | .715 |
| Within Groups | 28 | 25.750 | .920 | | |
| Total | 31 | 31.500 | 1.016 | | |

*Significant

Table 4
ANOVA summary table for question 4 (To what extent is your score a result of your verbal abilities and/or intelligence?) on the post-task questionnaire

| Source | *df* | *SS* | *MS* | *F* | *p* |
|---|---|---|---|---|---|
| Perfectionism | 1 | .500 | .500 | .533 | .471 |
| Self-Efficacy | 1 | .125 | .125 | .133 | .718 |
| Perfectionism X Self-Efficacy | 1 | 2.000 | 2.000 | 2.133 | .155 |
| Within Groups | 28 | 26.250 | .938 | | |
| Total | 31 | 28.875 | .931 | | |

*Significant

Table 5
ANOVA summary table for question 5 (To what extent is your score a result of the ease of the test?) on the post-task questionnaire

| Source | *df* | *SS* | *MS* | *F* | *p* |
|---|---|---|---|---|---|
| Perfectionism | 1 | .281 | .281 | .247 | .623 |
| Self-Efficacy | 1 | 3.781 | 3.781 | 3.322 | .079 |
| Perfectionism X Self-Efficacy | 1 | 3.781 | 3.781 | 3.322 | .079 |
| Within Groups | 28 | 31.875 | 1.138 | | |
| Total | 31 | 39.719 | 1.281 | | |

*Significant

Table 6
ANOVA summary table for question 6 (If you were to grade this test, what grade do you think you would receive?) on the post-task questionnaire

| Source | *df* | *SS* | *MS* | *F* | *p* |
|---|---|---|---|---|---|
| Perfectionism | 1 | .125 | .125 | .275 | .604 |
| Self-Efficacy | 1 | .125 | .125 | .275 | .604 |
| Perfectionism X Self-Efficacy | 1 | .500 | .500 | 1.098 | .304 |
| Within Groups | 28 | 12.750 | .455 | | |
| Total | 31 | 13.500 | .435 | | |

*Significant

Table 7
ANOVA summary table for question 7, which asks the subjects to rate their current affect on the presented semantic differentials, on the post-task questionnaire

| Source | *df* | *SS* | *MS* | *F* | *p* |
|---|---|---|---|---|---|
| Perfectionism | 1 | 132.031 | 132.031 | 1.628 | .212 |
| Self-Efficacy | 1 | 712.531 | 712.531 | 8.785 | .006* |
| Perfectionism X Self-Efficacy | 1 | 427.781 | 427.781 | 5.274 | .029* |
| Within Groups | 28 | 2271.125 | 81.112 | | |
| Total | 31 | 3543.469 | 114.305 | | |

*Significant

Table 8
ANOVA summary table for the number of items answered correctly on the actual RAT

| Source | *df* | *SS* | *MS* | *F* | *p* |
|---|---|---|---|---|---|
| Perfectionism | 1 | 2.531 | 2.531 | 1.488 | .233 |
| Self-Efficacy | 1 | 1.531 | 1.531 | .900 | .351 |
| Perfectionism X Self-Efficacy | 1 | 5.281 | 5.281 | 3.105 | .089 |
| Within Groups | 28 | 47.625 | 1.701 | | |
| Total | 31 | 56.969 | 1.838 | | |

*Significant

# Appendix B

## Study 1 Questionnaires

# Release Form

I, _____, understand that I will be participating in a study about my expectations for myself and feelings about myself. I will rate statements based on my own personal experience and opinion. I also understand that I may participate in another study that measures my creative thinking skills.

I understand that my answers will be anonymous to the researcher and that complete confidentiality is ensured.

I realize that I have the freedom to withdraw from this study at any time.

I hereby agree to participate in this study.

_____ _____

Signed Date

## Personal Information
## (For Statistical Purposes Only)

Name: _____

Age: _____

Year in School: _____

How many siblings do you have?: _____

In which order were you born (only, first, second, etc.)?: _____

Place of Birth (city, state, country if other than USA):

# MPS

SEX: M or F
AGE: _____

OCCUPATION:_____
MARITAL STATUS:_____

Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree and to what extent. If you *strongly agree*, circle 7; if you *strongly disagree*, circle 1; if you feel somewhere in between, circle any one of the numbers between 1 and 7. If you feel neutral or undecided the midpoint is 4.

| | Disagree | | | | | | Agree |
|---|---|---|---|---|---|---|---|
| 1. When I am working on something, I cannot relax until it is perfect. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. I am not likely to criticize someone for giving up too easily. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. It is not important that the people close to me are successful. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. I seldom criticize my friends for accepting second best. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. I find it difficult to meet others' expectations of me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. One of my goals is to be perfect in everything I do. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Everything that others do must be of top-notch quality. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. I never aim for perfection in my work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Those around me readily accept that I can make mistakes too. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. It doesn't matter to me when someone close to me does not do their absolute best. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. The better I do, the better I am expected to do. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. I seldom feel the need to be perfect. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. Anything I do that is less than excellent will be seen as poor work by those around me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. I strive to be as perfect as I can be. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. It is very important that I am perfect in everything I attempt. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. I have high expectations for the people who are important to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. I strive to be the best at everything I do. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. The people around me expect me to succeed at everything I do. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. I do not have very high standards for those around me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. I demand nothing less than perfection of myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | Disagree | | | | | | Agree |
|---|---|---|---|---|---|---|---|
| 21. Others will like me even if I don't excel at everything. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22. I can't be bothered with people who won't strive to better themselves. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 23. It makes me uneasy to see an error in my work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 24. I do not expect a lot from my friends. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 25. Success means that I must work even harder to please others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 26. If I ask someone to do something, I expect it to be done flawlessly. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 27. I cannot stand to see people close to me make mistakes. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 28. I am perfectionistic in setting my goals. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 29. The people who matter to me should never let me down. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 30. Others think I am okay,even when I do not succeed. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 31. I feel that people are too demanding of me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 32. I must work to my full potential at all times. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 33. Although they may not show it, other people get very upset with me when I slip up. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 34. I do not have to be the best at whatever I am doing. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 35. My family expects me to be perfect. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 36. I do not have very high goals for myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 37. My parents rarely expected me to excel in all aspects of my life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 38. I respect people who are average. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 39. People expect nothing less than perfection from me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 40. I set very high standards for myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 41. People expect more from me than I am capable of giving. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 42. I must always be successful at school or work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 43. It does not matter to me when a close friend does not try their hardest. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 44. People around me think I am still competent even if I make a mistake. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 45. I seldom expect others to excel at whatever they do. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

# The MPS

Directions: Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree and to what extent. If you strongly disagree, circle 1; if you strongly agree, circle 5. If you feel somewhere in between, circle any one of the numbers between 1 and 5. The midpoint, if you are neutral or undecided, is 3.

| | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|
| 1. My parents set very high standards for me. | 1 | 2 | 3 | 4 | 5 |
| 2. Organization is very important to me. | 1 | 2 | 3 | 4 | 5 |
| 3. As a child, I was punished for doing things less than perfect. | 1 | 2 | 3 | 4 | 5 |
| 4. If I do not set the highest standards for myself, I am likely to end up a second-rate person. | 1 | 2 | 3 | 4 | 5 |
| 5. My parents never tried to understand my mistakes. | 1 | 2 | 3 | 4 | 5 |
| 6. It is important to me that I be thoroughly competent in everything I do. | 1 | 2 | 3 | 4 | 5 |
| 7. I am a neat person. | 1 | 2 | 3 | 4 | 5 |
| 8. I try to be an organized person. | 1 | 2 | 3 | 4 | 5 |
| 9. If I fail at work/school, I am a failure as a person. | 1 | 2 | 3 | 4 | 5 |
| 10. I should be upset if I make a mistake. | 1 | 2 | 3 | 4 | 5 |
| 11. My parents wanted me to be the best at everything. | 1 | 2 | 3 | 4 | 5 |

| | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|
| 12. I set higher goals than most people. | 1 | 2 | 3 | 4 | 5 |
| 13. If someone does a task at work/school better than I, then I feel like I failed the whole task. | 1 | 2 | 3 | 4 | 5 |
| 14. If I fail partly, it is as bad as being a complete failure. | 1 | 2 | 3 | 4 | 5 |
| 15. Only outstanding performance is good enough in my family. | 1 | 2 | 3 | 4 | 5 |
| 16. I am very good at focusing my efforts on attaining a goal. | 1 | 2 | 3 | 4 | 5 |
| 17. Even when I do something very carefully, I often feel that it is not quite right. | 1 | 2 | 3 | 4 | 5 |
| 18. I hate being less than the best at things. | 1 | 2 | 3 | 4 | 5 |
| 19. I have extremely high goals. | 1 | 2 | 3 | 4 | 5 |
| 20. My parents have expected excellence from me. | 1 | 2 | 3 | 4 | 5 |
| 21. People will probably think less of me if I make a mistake. | 1 | 2 | 3 | 4 | 5 |
| 22. I never felt like I could meet my parents' expectations. | 1 | 2 | 3 | 4 | 5 |
| 23. If I do not do as well as other people, it means I am an inferior human being. | 1 | 2 | 3 | 4 | 5 |
| 24. Other people seem to accept lower standards from themselves than I do. | 1 | 2 | 3 | 4 | 5 |

| | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|
| 25. If I do not do well all the time, people will not respect me. | 1 | 2 | 3 | 4 | 5 |
| 26. My parents have always had higher expectations for my future than I have. | 1 | 2 | 3 | 4 | 5 |
| 27. I try to be a neat person. | 1 | 2 | 3 | 4 | 5 |
| 28. I usually have doubts about the simple everyday things I do. | 1 | 2 | 3 | 4 | 5 |
| 29. Neatness is very important to me. | 1 | 2 | 3 | 4 | 5 |
| 30. I expect higher performance in my daily tasks than most people. | 1 | 2 | 3 | 4 | 5 |
| 31. I am an organized person. | 1 | 2 | 3 | 4 | 5 |
| 32. I tend to get behind in my work because I repeat things over and over. | 1 | 2 | 3 | 4 | 5 |
| 33. It takes me a long time to do something "right." | 1 | 2 | 3 | 4 | 5 |
| 34. The fewer mistakes I make, the more people will like me. | 1 | 2 | 3 | 4 | 5 |
| 35. I never felt like I could meet my parents' standards. | 1 | 2 | 3 | 4 | 5 |

# BDI®

Date: _____

Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

This questionnaire consists of 21 groups of statements. After reading each group of statements carefully, circle the number (0, 1, 2 or 3) next to the one statement in each group which **best** describes the way you have been feeling the **past week, including today.** If several statements within a group seem to apply equally well, circle each one. **Be sure to read all the statements in each group before making your choice.**

| | | |
|---|---|---|
| 1 | 0 | I do not feel sad. |
| | 1 | I feel sad. |
| | 2 | I am sad all the time and I can't snap out of it. |
| | 3 | I am so sad or unhappy that I can't stand it. |
| 2 | 0 | I am not particularly discouraged about the future. |
| | 1 | I feel discouraged about the future. |
| | 2 | I feel I have nothing to look forward to. |
| | 3 | I feel that the future is hopeless and that things cannot improve. |
| 3 | 0 | I do not feel like a failure. |
| | 1 | I feel I have failed more than the average person. |
| | 2 | As I look back on my life, all I can see is a lot of failures. |
| | 3 | I feel I am a complete failure as a person. |
| 4 | 0 | I get as much satisfaction out of things as I used to. |
| | 1 | I don't enjoy things the way I used to. |
| | 2 | I don't get real satisfaction out of anything anymore. |
| | 3 | I am dissatisfied or bored with everything. |
| 5 | 0 | I don't feel particularly guilty. |
| | 1 | I feel guilty a good part of the time. |
| | 2 | I feel quite guilty most of the time. |
| | 3 | I feel guilty all of the time. |
| 6 | 0 | I don't feel I am being punished. |
| | 1 | I feel I may be punished. |
| | 2 | I expect to be punished. |
| | 3 | I feel I am being punished. |
| 7 | 0 | I don't feel disappointed in myself. |
| | 1 | I am disappointed in myself. |
| | 2 | I am disgusted with myself. |
| | 3 | I hate myself. |
| 8 | 0 | I don't feel I am any worse than anybody else. |
| | 1 | I am critical of myself for my weaknesses or mistakes. |
| | 2 | I blame myself all the time for my faults. |
| | 3 | I blame myself for everything bad that happens. |
| 9 | 0 | I don't have any thoughts of killing myself. |
| | 1 | I have thoughts of killing myself, but I would not carry them out. |
| | 2 | I would like to kill myself. |
| | 3 | I would kill myself if I had the chance. |
| 10 | 0 | I don't cry any more than usual. |
| | 1 | I cry more now than I used to. |
| | 2 | I cry all the time now. |
| | 3 | I used to be able to cry, but now I can't cry even though I want to. |
| 11 | 0 | I am no more irritated now than I ever am. |
| | 1 | I get annoyed or irritated more easily than I used to. |
| | 2 | I feel irritated all the time now. |
| | 3 | I don't get irritated at all by the things that used to irritate me. |
| 12 | 0 | I have not lost interest in other people. |
| | 1 | I am less interested in other people than I used to be. |
| | 2 | I have lost most of my interest in other people. |
| | 3 | I have lost all of my interest in other people. |
| 13 | 0 | I make decisions about as well as I ever could. |
| | 1 | I put off making decisions more than I used to. |
| | 2 | I have greater difficulty in making decisions than before. |
| | 3 | I can't make decisions at all anymore. |

_____ Subtotal Page 1

CONTINUED ON BACK

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**14**
0 I don't feel I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.

**15**
0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.

**16**
0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.

**17**
0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

**18**
0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

**19**
0 I haven't lost much weight, if any, lately.
1 I have lost more than 5 pounds.
2 I have lost more than 10 pounds.
3 I have lost more than 15 pounds.

I am purposely trying to lose weight by eating less. Yes _____ No _____

**20**
0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems that I cannot think about anything else.

**21**
0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

_____ Subtotal Page 2

_____ Subtotal Page 1

_____ Total Score

# Interpersonal Concerns Questionnaire

Directions: This is a test that measures personal characteristics and traits. Check all items that you can currently perform. Then rate how well you feel you can perform these tasks. If you can poorly perform the task, circle 1; if you can perfectly perform the task, circle 10.

| | Poorly | | | | | | | | | Perfectly |
|---|---|---|---|---|---|---|---|---|---|---|
| I am able to: | | | | | | | | | | |
| ___ 1. initiate a conversation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 2. compliment others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 3. criticize others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 4. accept an invitation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 5. help others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 6. support (verbally) others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 7. extend an invitation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 8. show affection. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 9. make jokes and tell humorous stories. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 10. share my feelings. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 11. smile. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 12. take a definite stand on a controversial issue. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 13. request a favor. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 14. assert myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ___ 15. introduce myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

| | Poorly | | | | | | | | | Perfectly |
|---|---|---|---|---|---|---|---|---|---|---|
| I am able to: | | | | | | | | | | |
| ____ 16. express my opinion. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ____ 17. keep the conversation going. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ____ 18. thank. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ____ 19. be an interesting person. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ____ 20 ask to borrow something. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ____ 21. avoid embarrassments. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ____ 22. avoid feeling inadequate socially. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ____ 23. avoid feeling inferior or incompetent. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ____ 24. avoid worry. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

# Appendix C

## Study 2 Questionnaires

# Release Form

I, _____, understand that I will be participating in a study about my reasoning abilities. I will read groups of three words that are related to each other and find a fourth word that is related to all three words. After this task, I will answer questions about the task and my feelings.

I understand that my answers will be kept confidential.

I realize that I have the freedom to withdraw from this study at any time.

I hereby agree to participate in this study.

_____ _____

Signed Date

# PRACTICE

## Remote Associates Test

Directions: This is a test of reasoning ability. In this test you are presented with three words and asked to find a fourth word which is *related* to *all* three. Write this word in the space to the right.

---

| | | | | |
|---|---|---|---|---|
| 1. | athletes | web | rabbit | _____(1) |
| 2. | shelf | read | end | _____(2) |
| 3. | sea | home | stomach | _____(3) |
| 4. | car | swimming | cue | _____(4) |
| 5. | board | magic | death | _____(5) |
| 6. | walker | main | sweeper | _____(6) |
| 7. | cookies | sixteen | heart | _____(7) |
| 8. | chocolate | fortune | tin | _____(8) |
| 9. | lounge | hour | drink | _____(9) |
| 10. | keel | show | row | _____(10) |

# Remote Associates Test

Directions: This is a test of reasoning ability. In this test you are presented with three words and asked to find a fourth word which is *related* to *all* three. Write this word in the space to the right.

---

| | | | | |
|---|---|---|---|---|
| 1. | bass | complex | sleep | _____(1) |
| 2. | chamber | staff | box | _____(2) |
| 3. | desert | ice | spell | _____(3) |
| 4. | base | show | dance | _____(4) |
| 5. | inch | deal | peg | _____(5) |
| 6. | soap | shoe | tissue | _____(6) |
| 7. | blood | music | cheese | _____(7) |
| 8. | skunk | kings | boiled | _____(8) |
| 9. | jump | kill | bliss | _____(9) |
| 10. | shopping | washer | picture | _____(10) |

# Questionnaire

Directions: Answer the questions below as they reflect the way you feel now.

| | Not at All | | | | Absolutely |
|---|---|---|---|---|---|
| 1. To what extent do you believe you were able to answer all of the items correctly? | 1 | 2 | 3 | 4 | 5 |
| 2. To what extent is your score a result of how hard you tried? | 1 | 2 | 3 | 4 | 5 |
| 3. To what extent is your score a result of luck? | 1 | 2 | 3 | 4 | 5 |
| 4. To what extent is your score a result of your verbal abilities and/or intelligence? | 1 | 2 | 3 | 4 | 5 |
| 5. To what extent is your score a result of the ease of the test? | 1 | 2 | 3 | 4 | 5 |
| 6. If you were to grade this test, what grade do you think you would receive? | F | D | C | B | A |

7. Please rate how you feel now:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| good | ____ | ____ | ____ | ____ | ____ | ____ | ____ | bad |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| pleasant | ____ | ____ | ____ | ____ | ____ | ____ | ____ | unpleasant |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| happy | ____ | ____ | ____ | ____ | ____ | ____ | ____ | sad |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| agreeable | ____ | ____ | ____ | ____ | ____ | ____ | ____ | agitated |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| cheerful | ____ | ____ | ____ | ____ | ____ | ____ | ____ | hostile |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| amused | ____ | ____ | ____ | ____ | ____ | ____ | ____ | enraged |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| sociable | ____ | ____ | ____ | ____ | ____ | ____ | ____ | unsociable |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| hopeful | ____ | ____ | ____ | ____ | ____ | ____ | ____ | hopeless |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| joyful | ____ | ____ | ____ | ____ | ____ | ____ | ____ | upset |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |